

nature of the soil or rocks where the plants were found; the time of their first coming into flower; with a space for general observations. The principles and objects of Mr. Brand's scheme and arrangement seemed to be generally approved of, and it was referred to a Committee to consider it more fully, and to report to the Meeting in November.

The Society then adjourned till Thursday the 8th of November.

ZOOLOGICAL SOCIETY.

January 9th, 1838.—Thomas Bell, Esq., in the Chair.

Mr. Gray exhibited a new species of *Perameles*, in size and general appearance very closely agreeing with *Per. nasutus*, but peculiar for its very short white tail, and in having several indistinct broad white bands over the haunches. The species inhabits Van Diemen's Land, where it frequents gardens, and commits great havoc amongst bulbous roots, which it is said to devour with avidity. Mr. Gray proposed for it the name of *Per. Gunnii*, after its discoverer, Mr. Ronald Gunn\*.

It was suggested in the course of some discussion which followed Mr. Gray's observations, that the roots upon which this species was supposed to feed, were probably attacked for the purpose of procuring such insects as might be found in them; and Mr. Owen in reference to this point alluded to a dissection of a *Perameles* made by Dr. Grant, and published in the Wernerian Transactions, in which insects were found to constitute almost the sole contents of the stomach and intestines.

A very large and beautiful Antelope, of a species hitherto entirely unknown, and which had just arrived in England under the care of Captain Alexander from the Cape, was in the room for exhibition; and the history of the circumstances under which it had been discovered, were detailed in the following letter, addressed to the Secretary, by Capt. W. C. Harris, of the Bombay Engineers.

Cape Town, South Africa, Oct. 10, 1837.

Sir,—I beg the favour of your presenting to the Zoological Society the accompanying drawing and description of an entirely new and very interesting species of Antelope, which I discovered in the course of an expedition to the interior of Africa, from which I have lately returned. A perfect specimen that I brought down has been admirably set up by Monsieur Verreaux, the French naturalist at Cape Town, and will be sent to London in the course of a few days,

\* Since described in the Annals of Natural History, for April, 1838.

to the care of Dr. Andrew Smith. It would appear to belong to the sub-genus *Aigocerus*, and in form, as well as in other respects, bears remote resemblance to the *Aigocerus Equina*, (Roan Antelope or Bastard Gemsbok,) with which it has been confounded by many persons imperfectly acquainted with the subject to whom it has been exhibited. A comparison of the two animals will, however, render the existing difference between them too obvious to demand any observation from me.

During nearly three months that I hunted over the country lying between the 24th and 26th parallels of south latitude, within 28° and 30° east longitude, I only once met with the Antelope in question. On the northern side of the Cashan range of mountains, about a degree and a half south of the tropic of Capricorn, I found a herd, consisting of nine does and two bucks, and followed them until I captured the specimen from which the enclosed drawing was made.

None of the natives of the country were familiar with the appearance of the animal when first interrogated on the subject, although after conferring amongst themselves, they agreed that it was Kōō-kāme, (*Oryx Capensis*,) the Gemsbok; and, of the many individuals to whom it has been shown, a trader named Robert Scoon is the only one by whom it has been recognized. He declares that he saw a herd of them some years ago near the very spot I have described, but could not succeed in killing one. It is, doubtless, very rare; and, judging from the formation of the foot, entirely confined to the mountains.

The females are somewhat smaller than the males, are provided with shorter and slighter, but similarly shaped horns, and are similarly marked; a deep chestnut brown, verging upon black, taking the place of the glossy black coat of the male. I did not obtain a female specimen; but whilst riding down the buck, I had abundant opportunities of narrowly observing them within the distance of a few yards, and am, therefore, positive as to the correctness of the description here given.

I have for the present designated the new Antelope "*Aigocerus niger*;" but of course it will rest with the Zoological Society either to confirm that name, or to bestow one more appropriate or more scientific; and I shall be gratified by their doing so.

I have the honour to be, sir,

Your most obedient servant,

W. C. HARRIS.

The following description of this interesting addition to the *Fauna* of Southern Africa was appended to the above letter.

*Aigocerus niger*. THE SABLE ANTELOPE.

Adult male four feet six inches high at the shoulder; nearly nine feet in extreme length. Horns thirty-seven inches over the curve, placed immediately above the eyes, rather higher than occurs in the *Aigocerus Equina*; flat, slender, sub-erect, and then strongly bent back similar-wise\*; at first gradually diverging, and then running parallel to each other; three-fourths annulated with about thirty strongly pronounced, incomplete rings, more rigid on the edges, but chiefly broken on the outside of the horn; the remaining one fourth smooth, round, slender and pointed. Head somewhat attenuated towards the muzzle, and compressed laterally. Carcase robust. Withers elevated. Neck broad and flat. Hoofs black, obtuse, and rather short. Hair close and smooth: general colour of the coat intense glossy black, with an occasional cast of deep chestnut. A dirty white streak commencing above each eye, continued by a pencil of long hairs covering the place of the suborbital pouch, (of which cavity no trace is to be found in this Antelope,) and then running down the side of the nose to the muzzle, which is entirely white; the same colour pervading one half of the cheek, the chin and the throat. Ears ten inches long, narrow, tapering and pointed; white within, lively chestnut without, with black pencilled tips. A broad half crescent of deep chestnut at the base of each ear, behind. A small, entire black muzzle. A copious standing black mane, five and a half inches high, somewhat inclined forwards, and extending from between the ears to the middle of the back. Hair of the throat and neck longer than that of the body. Belly, buttocks, and inside of thighs, pure white. A longitudinal dusky white stripe behind each arm. Fore legs jet black inside and out, with a tinge of chestnut on and below the knees. Hind legs black, with a lively chestnut patch on and below the hocks. Tail black; long hair skirting the posterior edge, and terminating in a tuft which extends below the hocks. Sheath tipped with black.

Female smaller than the male, with smaller, but similarly shaped horns. Colour, deep chestnut brown verging upon black.

Very rare. Gregarious, in small families. Inhabits the great mountain range which threads the more eastern parts of Moselekatse's territory.

\* *Scimitar-wise?*

## DIMENSIONS.

	Inches.		Inches.
Height at shoulder . . . . .	54	Breadth of neck . . . . .	16
Length of body . . . . .	44	Breadth of fore-arm . . . . .	6
Length of neck . . . . .	17	Breadth of thigh . . . . .	6
Length of head . . . . .	19	Breadth of fore-leg . . . . .	2½
Length of tail . . . . .	25	Breadth of hind-leg . . . . .	3
Length of hind-quarter . . . . .	19	Length of horns . . . . .	37
Depth of chest . . . . .	30	Breadth asunder at base . . . . .	1
Length of fore-arm . . . . .	16	Breadth asunder at tips . . . . .	9½
Fore knee to foot . . . . .	15	Length of ears . . . . .	10
Croup to hock . . . . .	36	Breadth of head . . . . .	9
Hock to foot . . . . .	18½		

A specimen of a marine snake (*Pelamys bicolor*) presented to the Museum by the Rev. William White, Wesleyan Missionary to the New Zealand Association, and which, with several others, had been picked up dead upon the beach on the west coast of that country, was upon the table; also another portion of the birds collected by Charles Darwin, Esq., to which Mr. Gould in continuation drew the attention of the Members.

January 23.—Richard Owen, Esq., in the Chair.

A selection of the *Mammalia* procured by Captain Alexander during his recent journey into the country of the Damaras, on the South West Coast of Africa, was exhibited, and Mr. Ogilby directed the attention of the Society to the new and rare species which it contained.

Among the former were the *Herpestes melanurus* and *Cynictis Ogilbii* of Dr. Smith, the *Canis megalotis*, &c. The latter consisted of five new species, which Mr. Ogilby characterized as follows:

*Macroscelides Alexandri*. Fur long and fine, very dark blue-black at the root, but pointed with pale sandy-red above, and white beneath; ears pretty large, subelliptical, and red behind; whole under lip red; *tarsi* white; tail long, hairy, and very much attenuated: length 5¾ inches; tail 4¾ inches.

*Macroscelides melanotis*. Of a rather larger size than the former, with large head, dark brown or black ears, rather sandy under lip, dunnish white throat and *abdomen*, but pale reddish brown chest; colour of the upper parts much the same, but rather more ashy; *tarsi* light brown; tail mutilated: length 6 inches.

*Chrysochloris Damarensis*. Brown, with a silvery lustre both above and below; a yellowish white semicircle extends from eye to eye, under the chin, covering the whole of the cheeks, lips and lower jaw; a very marked character which, as well as the peculiar shade of the

colour, readily distinguishes it from the new species described by Dr. Smith: no tail: length  $4\frac{1}{2}$  inches.

*Bathyergus Damarensis*. A species intermediate in size between *Capensis* and *Hottentotus*: colour uniform reddish brown both above and below, with a large irregularly square white mark on the *occiput*, much larger than in *Hottentotus*, and another on each side of the neck just under the ears; these two meet on the throat, which is thus covered with dirty dunnish white; tail, a large flat stump covered with coarse reddish brown bristles, which stand out from it in all directions like *radii*; paws reddish brown: length  $8\frac{1}{2}$  inches; tail  $\frac{1}{2}$  inch\*.

*Graphiurus elegans*. Smaller than *Graph. Capensis* of Cuv., and of a purer and deeper ash colour above; the chin, throat, and cheeks are covered by a large patch of pure white, the rest of the under surface is mixed grey and ash, and all the *tarsi* and paws pure white: there is a mark of the same colour above and in front of each ear, and an oblique white stripe runs from the throat backwards over the shoulder, just in front of the arms; an intense black stripe passes from the commissure of the mouth, through the eye to the ear; the tail is covered with short coarse hair, pure white above, pure black below, and pencilled or shaded on each side; face greyish ash; whiskers abundant, and of a grey colour: length 5 inches; tail  $2\frac{3}{8}$  inches.

Mr. Ogilby observed, that the above species, and the one described by F. Cuvier, under the name of *Graph. Capensis*, appeared to him to differ in no respect from the genus *Myoxus*, and that in characterising the present animal, he merely made use of the name *Graphiurus* to indicate its relation to that originally described by Cuvier.

Mr. Ogilby likewise called the attention of the Society to certain peculiarities in the structure of the hand, in a living specimen of a new species of *Galago*, which he proposes to call *Otolicnus Garnettii*, after the gentleman to whom he was indebted for the opportunity of describing it, and who has already conferred many advantages upon science by the introduction of numerous rare and new animals. The peculiarity of structure to which Mr. Ogilby alluded, consisted in the partially opposable character of the index finger of the fore hands, the fingers on these members being divided into two groups, composed of the thumb and index on one side, and the remaining three fingers on the other, as in the Koalas and Pseudocheirs. He re-

\* This specimen, and the *Macroscelides melanotis*, were purchased for the British Museum, and the remaining three species for the Museum of the Zoological Society at the sale of Capt. Alexander's Collection, March 8, 1838.

marked that the anterior index in all the inferior *Lemuridæ* was weak and powerless, and that it had the same tendency to divide with the thumb instead of the other fingers in the rest of the Galagos, as well as in the *Nycticebi*, *Microcebi*, *Cheirogalei*, and *Tarsii*, whilst in the Potto it was reduced almost to a tubercle. These genera consequently formed a little group analogous to the Koalas and Pseudo-cheirs among the *Didelphidæ*, being, exclusive of these animals, the only Cheiropeds in which this character occurs; and Mr. Ogilby regarded the fact as a strong confirmation of the truth of the relations which he had formerly pointed out as subsisting between these two families. The *Otolicnus Garnettii* is of a uniform dark brown colour on every part both above and below; the ears large, black, and rather rounded; the tail long, cylindrical and woolly; and the size of the animal about that of a small *lemur*, or considerably larger than *Oto. Senegalensis*.

A communication was then read to the Meeting by Prof. Owen, entitled, "Notes on the Anatomy of the Nubian Giraffe."

These notes contain the general results of the anatomical examination of three specimens of the Giraffe, which Mr. Owen had been so fortunate as to have the opportunity of dissecting; one of the three (a male) died in the Society's Menagerie, and the remaining two (male and female) were in the possession of Mr. Cross of the Surrey Zoological Gardens.

The author agrees with Cuvier in considering that the external characters of the Giraffe clearly indicate its position in the order *Ruminantia*, to be between the genera *Cervus* and *Antelope*; the true bony material of its horns, which are covered by a *periosteum* defended by hairy integument, resembling the growing antlers of the Deer; but the non-deciduous character of this tegumentary covering to the *periosteum*, and the consequent permanency of the horns in the Giraffe, reminding us of the persistent nature of these organs as it obtains throughout the Antelopes.

The black callous integument on the upper surface in the horns, is noticed as a probable indication of a tendency to develop a superabundance of epidermic material; and Mr. Owen conceives that the strong black hair which grows in a matted tuft around their extremities may represent, in an unravelled state, the fibres composing the horny coverings of the core in the horns of the Antelope. A few examples occur among both Deer and Antelopes, in which the possession of horns is found in the two sexes, as in the Giraffe; but in this animal these organs present certain peculiar characters in the mode of their articulation to the skull, the basis of the horn

being united by *sychondrosis* to the frontal and parietal bones, constituting an *epiphysis* rather than an *apophysis* of the *cranium*. With regard to the supposed occurrence of a third horn in the male Nubian Giraffe, as the osteological details bearing upon this point are given in that part of the memoir which embraces the description of the skeleton, Mr. Owen in this place merely observes, that the evidence afforded by the examination of the two individuals in question was rather opposed to, than in favour of its existence.

The general form of the Giraffe is obviously modified with especial reference to its exigencies and habits; the prolongation and extensibility of its hair-clad muzzle, the peculiar development, cylindrical shape and flexibility of its tongue; the oblique and narrow apertures of the nostrils, defended by hair and surrounded with cutaneous muscular fibres, enabling the animal to close them at will, and thus to protect the olfactory cavity from the fine particles of sand which in the storms of the desert would otherwise find ingress, are points referred to by the author as exhibiting marked adaptations of structure in especial harmony with a mode of life consequent upon the nature of its food and its geographical distribution.

For a description of the general external peculiarities of the body the author refers to Rüppell's *Reise im Nordlichen Africa*; Geoffroy in the *Annales des Sciences*, xi. p. 210; Salze, in the *Mémoires du Museum*, xiv. p. 68; and the 5th and 6th volumes of Sir E. Home's *Comparative Anatomy*.

The bulk of the paper consists of anatomical details relative to the organs of digestion, the sanguiferous system, the nervous system, the muscles, and the male and female organs of generation of the Giraffe, for which we must refer to the original abstract contained in No. 61 of the Society's "Proceedings." We extract, however, the following particulars belonging strictly to the *comparative anatomy* and to the zoological relations of this animal.

The Giraffe differs from every other Ruminant in the form of the mouth, which resembles that of the Elk in the non-division and extensibility of the hair-clad upper lip, but differs widely from it in the elegant tapering shape of the muzzle. The muscles of the tongue, both as to number and arrangement, presented no peculiarities of importance, but the nerves were characterized by the beautiful wavy course in which they were disposed, and by which disposition they are accommodated to the greatly varying length of this organ. The erectile tissue, conjectured by Sir Everard Home to be present in the tongue of the Giraffe, and to be the cause of its extension, has no existence: the only modifications of the vas-

cular system worthy of notice were the large size and slight plexiform arrangement of the lingual veins at the under part of the base of the tongue. The inner surface of the lips, especially where they join to form the angles of the mouth, was beset with numerous close-set, strong, retroverted and pointed *papillæ*, similar to those distributed over the interior of the gullet in the *Cheloniæ*; a structure which is also present in other Ruminants.

The palate was beset with about sixteen irregular transverse ridges, having a free denticulate edge directed backwards; an apparatus for detaining the food, and ensuring its deglutition, which Mr. Owen notices as especially required in the Giraffe, by reason of the small comparative size of its head and jaws: he also refers to the mechanical obstacles, which oppose the escape of the food when regurgitated, in the *Ruminantia* generally, as the presence of buccal *papillæ*, &c. as an evidence on which to found an argument of special adaptation or design. This structure is noticed by Cuvier, but considered by him as only coexistent with the occurrence of *papillæ* upon the lining membrane of the stomach, and as a condition of parts which furnishes no obvious indication of any connexion with final causes; with a view of showing that no such relation of coexistence as that imagined by Cuvier, in the presence of *papillæ* upon different portions of the alimentary canal, can be positively established, Mr. Owen instances the Turtle, which has these callous bodies in great abundance, but entirely restricted to the lining membrane of the *æso-phagus*, in which situation their use is sufficiently apparent. The great *omentum*, in the female, was studded reticularly with fat, as in the Ruminants generally. In the male, on raising the paunch, the spiral coils of the *colon* (characteristic of the Ruminants) came into view, together with the rest of the *jejunum* and *ilium*, upon the removal of which the third and fourth stomachs, and the small liver wholly confined to the right of the mesial plane, were exposed. The spleen, as usual in the *Ruminantia*, had its concave surface applied to the left side of the first stomach or *rumen*.

The kidneys occupied the usual position in the loins, the right one a little more advanced than the left; their figure was rounded and compact, as in the Deer and Antelopes, and they were not externally lobated as in the Ox.

The cells of the *reticulum*, as in the Reindeer, were extremely shallow, their boundaries appearing only as raised lines; but there was the same form and grouping of the cells as obtains throughout the Ruminants generally, the arrangement being that by which the greatest number are included in the least possible space.



The folds of the *psalterium* resembled those of most other Ruminants.

The *cæcum* was a simple cylindrical gut, as in other Ruminants; its circumference about six inches. The disposition of the *colon* resembled that of the Deer.

The presence of a gall-bladder, distinguishing the hollow-horned from the solid-horned Ruminants, made the investigation of this point in the anatomy of the Giraffe one of extreme interest; and Mr. Owen remarks, that the result of his examination of three individuals shows the caution which should be exercised in generalizing upon the facts of a single dissection.

In the first Giraffe (Mr. Cross's female) a large gall-bladder was present, having the ordinary position and attachments, but presenting the unusual structure of a bifid *fundus*. Upon making a longitudinal incision down its side, it was found to be divided throughout its length by a vertical *septum* of double mucous membrane, forming two reservoirs of equal size; the organ in fact was double, each bladder having a smooth lining membrane, and communicating separately with the commencement of a single cystic duct.

In the two Giraffes subsequently dissected not a vestige of this organ could be detected, the bile in them being conveyed by a rather wide hepatic duct to the *duodenum*. Mr. Owen therefore concludes that the absence of the gall-bladder is the normal condition, and that the Giraffe in this respect has a nearer affinity to the Deer than to the Antelopes.

The cranial *plexus* of the internal carotid artery was much less developed than in the ordinary grazing Ruminants.

The brain of the Giraffe closely resembled, in its general form, and in the number, disposition, and depth of the convolutions, that of the Deer: it was more depressed than in the Ox, and the *cerebrum* was wholly anterior to the *cerebellum*. The anterior contour of the cerebral hemispheres was somewhat truncated.

The olfactory nerves were large, as in most *Ruminantia*, and terminated in expanded bulbs, in length  $1\frac{1}{2}$  inch, in breadth .1 inch: these were lodged in special compartments of the cranial cavity. The optic nerves and ninth pair were relatively larger than in the Deer. The other cerebral nerves presented no peculiarity.

The spinal chord had a close investment of *dura mater*, and was remarkable for the great length of its cervical portion, which, in the Giraffe dissected at the Zoological Gardens, measured upwards of three feet, the entire length of the animal from the muzzle to the vent being eight feet. Mr. Owen here particularly describes the appearance in the origins of the cervical nerves depending upon the

elongation of this part of the spinal chord; the space between the lower filaments forming the root of one nerve, and the upper filaments of the root of the succeeding nerve was not more than the space between the individual filaments of each root; whence it would seem that the elongation of the cervical portion of the chord was produced by a general and uniform interstitial deposition during foetal development, which thus effected an equable separation of these filaments; so that a single nerve, as in the case of the third cervical, might derive its origin from a space extending six inches in length.

In the dissection of the abdominal muscles no peculiarity of importance was noticed; but in the neck there existed a highly interesting modification of the parts which effect the retraction of the *os hyoides*. The pair of muscles which, as in some other Ruminants, combines the offices of *sterno-thyroideus* and *sterno-hyoideus*, arose in the Giraffe by a single long and slender carneous portion from the anterior extremity of the *sternum*; this fleshy origin was nine inches long, and it terminated in a single round tendon six inches in length; the tendon then divided into the two muscles, each division becoming fleshy, and so continuing for about 16 or 18 inches; then each muscle again became tendinous for the extent of two inches, and ultimately carneous again, prior to being inserted in the side of the thyroid cartilage, and continued thence in the form of a *fascia* into the *os hyoides*.

Mr. Owen observes that this alternation of a non-contractile with a contractile tissue, as exhibited by the above structure, displays in a most striking manner the use of tendon in regulating the amount of muscular contraction. Had the *sterno-thyroideus* been muscular throughout its entire length, the contraction of its fibres would have been equal to draw down the *larynx* and *os hyoides* to an extent quite incompatible with the connections of the adjacent parts; but the intervention of long and slender tendons duly apportions the quantity of contractile fibre to the extent of motion required.

The *ligamentum nuchæ* was remarkable for its prodigious development; it commenced at the sacral *vertebræ*, and receiving, as it advanced, accessions from each of the lumbar and dorsal *vertebræ*, became inserted into the spinous processes of the cervical, the extreme portion passing freely over the *atlas*, and terminating by an expanded insertion upon the occipital crest. The bony attachment of the ligament afforded by the skull was raised considerably above the roof of the cranial cavity, the exterior table of the skull being widely separated from the vitreous plate by large sinuses, which commencing above the middle of the nasal cavity extended as far posteriorly as beneath the base of the horns; the sinuses were traversed by strong

bony *septa*, forming a support to the exterior table. The sphenoidal sinuses were of large size.

The nasal cavity occupied the two anterior thirds of the skull, and the *ossa spongiosa* were proportionably developed.

The condyles of the *occiput* were remarkable for their great extent in the vertical direction, and the inferior and posterior parts of the articular surface meet at an acute angle; a structure which enables the Giraffe to elevate the head into a line with the neck, and even to incline it slightly backwards.

Four longitudinal rows of flattened processes projected from the inner surface of the *uterus*, showing that the *fœtus* is developed in the Giraffe by means of a cotyledonous subdivided *placenta*, as in other horned Ruminants, and not, as in the Camel, by an uniform vascular villosity of the *chorion*.

February 13th, 1838.—William Yarrell, Esq., in the Chair.

Mr. Martin exhibited an insectivorous animal which had fallen under his observation in examining a collection of specimens, presented some time since to the Museum, by the late William Telfair, Esq.

In the Zoological Proceedings for March 12th and July 9th, 1833, reference is made to a letter of Mr. Telfair's, accompanying a very young insectivorous animal, known to the natives of Madagascar by the name "Sokinah," and which Mr. Telfair was disposed to refer to the genus *Centenes*. The above specimen being only seventeen days old, its characters could not be satisfactorily determined; but the present animal, which Mr. Martin considers to be the adult of the same species, appears to be more nearly related to the genus *Erinaceus* than *Centenes*; but at the same time it differs so materially in the character of its dentition, as to warrant the establishment of a new genus for its reception. Mr. Martin therefore proposed to characterize it under the generic appellation of *Echinops*, with the specific title of *E. Telfairi*, in memory of the lamented and zealous Corresponding Member of the Society from whom it had been received.

#### ECHINOPS.

*Corpus* supernè spinis densis obtectum.

*Rostrum* breviusculum.

*Rhinarium, aures, caudaque* ut in *Erinaceo*.

*Dentes primores*  $\frac{4}{2}$ , superiorum duobus intermediis longissimis, discretis, cylindræis, antrorsùm versis; proximis minoribus.

*Canini*  $\frac{1-1}{0-0}$ .

*Molares*  $\frac{5-5}{7-7}$ ; utrinsecùs antico 1<sup>mo</sup> suprà, et 3<sup>bus</sup> infrà spuriis; reliquis, ultimo suprà excepto, tricuspidadis, angustis, transversim

positis; ultimo suprà angustissimo; molaribus infrà inter se ferè aequalibus, ultimo minore.

*Pedes* 5-dactyli, ambulatorii; halluce brevior; unguibus parvulis, compressis; plantis denudatis.

**ECHINOPS TELFAIRI.** *Ech. auribus mediocribus, subrotundatis intùs atque extùs pilis parvulis albidis obsitis; capite suprènè pilis fuscis; buccis, mystacibus corporeque subtùs sordidè albis, spinis fusciscenti-albis ad basin, apicibus castaneis; caudd vix apparente.*

	unc.	lin.
Longitudo corporis totius . . . . .	5	2
———— ab apice rostri ad auris basin . .	1	2
———— tarsi, digitorumque . . . . .	„	10 $\frac{3}{4}$
———— auris . . . . .	„	5

Habitat. Madagascar?

“*Sokinah*” of the Natives of Madagascar?

In the *upper jaw* the incisors are four in number, and apart; the two middle are large, sub-cylindrical, elongated, and placed at the apex of the jaw; the two others are small, and seated behind the former. Separated from these by a small space, succeed the canines, similar in character to the incisors, but stouter and with a slight posterior notch. The molars are five on each side: the first false and simple; the three next transversely elongated, with two external tubercles in contact, and one internal; hence their crowns assume the form of an elongated triangle, the apex being internal; the fifth molar is a slender *lamina* transversely placed, but not advancing so far laterally as the molar preceding it.

The *under jaw* presents two small incisors, somewhat apart from each other, and directed obliquely forwards; behind these there follow on each side in succession three larger and conical teeth, directed obliquely forwards, and which may be regarded as *false molars*. Separated from the last of these by a small space, succeed four molars on each side, vertical and smaller than those above, with two tubercles internally and one externally, so that the worn surface is triangular, with the apex outwards; the last is the smallest: the surfaces of all are apart, but their bases are in contact.

Mr. Martin observes, that this system of dentition (very distinct from that which characterizes the Tenrecs, (*Centenes*), and the genus *Ericulus* of Isidore Geoffroy) presents us with characters which decidedly separate *Echinops* from *Erinaceus*, notwithstanding their approximation. In *Erinaceus* the upper incisors are six; there are no canines, but three false molars on each side, and four true molars, of which the last is small and narrow; the others square, with two outer and two inner tubercles; while in the lower jaw, the incisors,

two in number, are very large, followed on each side by two false molars, and four true molars. In *Echinops*, as in *Erinaceus*, the feet have five toes; the thumb of the fore-feet is small and seated on the wrist, the other toes are small, and armed with feeble, compressed, hooked claws, the last toe the smallest: the toes of the hind-feet resemble those of the fore-feet, and the inner and outer are the smallest. The snout, ears, tail, and spiny covering of the upper surface of the body, as in *Erinaceus*.

The skull, as compared with that of *Erinaceus*, was proportionally very inferior in size; it was more level above, and narrower, the cranial cavity being contracted, and the muzzle shorter. The occipito-parietal ridge was elevated, the zygomatic arches were almost obsolete. The palate was narrow, and the posterior *foramina*, which in the hedgehog are large open fissures, were reduced to minute orifices. The *pelvis* was very narrow, and the pubic bones were separate in front.

The vertebral *formula* was as follows:

Cervical .....	7
Dorsal .....	15
Lumbar.....	7
Sacral .....	2
Coccygeal.....	8?

The ribs consisted on each side of 8 true and 7 false.

Mr. Yarrell exhibited a recently preserved example of a new species of Swan, closely allied in external appearance to the well-known Domestic Swan, but having the legs, toes, and interdigital membranes of a pale ash-grey colour, which in the *Cygnus olor*, Ill., are deep black. Mr. Yarrell observed, that this species had been known to him for some years past as an article of commerce among the London dealers in birds, who receive it from the Baltic, and distinguish it by the name of the Polish Swan. In several instances, these swans had produced young in this country, and the cygnets when hatched were pure white, like the parent birds, and did not assume at any age the brown colour borne for the first two years by the young of all the other known species of White Swans. Mr. Yarrell considered that this peculiarity was sufficient to entitle the bird to be ranked as a distinct species, and in reference to the unchangeable colour of the plumage, proposed for it the name of *Cygnus immutabilis*.

During the late severe weather, flocks of this swan were seen pursuing a southern course along the line of our north-east coast, from Scotland to the mouth of the Thames, and several specimens were obtained. The specimen exhibited was shot on the Medway, where one flock of thirty, and several smaller flocks were seen.